UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/078,469	05/14/1998	YASUSHI TAKAHASHI	450100-4487	7293

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ART UNIT	PAPER NUMBER
2611	17

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7,9-11,13 and 17-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7,9-11,13 and 17-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed April 1, 2004 have been fully considered but they are

not persuasive.

Applicant argues, as amended, independent claims 1, 7, 13, 21 and 25 specifically

recite that the value mode is employed for retrieving information and has no relation to

the indication of tastes of the user. Thus, if a user selects a maximum model mode, for

example, information will be retrieved if a user assigned to the group has a genre that is

especially desired to be watched, thus indicating that one user in the group has a strong

preference for the genre. However, if a minimum mode is selected, information will be

retrieved for a genre such that nobody among all of the users has complained. Finally, if

a simple average mode is selected, information related to a genre liked by all users

assigned to the group is selected.... Then, the Applicant concludes, "Robinson fails to

teach this feature." and "neither Bergh el al. nor Hendricks et al. teaches these

elements." This argument is respectfully traversed.

It is noted the feature in Applicant's argument is not recited in independent claims

1,7,13,21 and 25. As amended, independent claims 1,7,13,21 and 25 recites "wherein

the group user model is employed to retrieve information in accordance with a user

selection maximum value mode, minimum value mode or average value mode in which

an end user selects between a maximum value, minimum value or average value,

respectively, of said plurality of specific user models so that particular desired

information from said group user model in accordance with said selected mode is

provided." Robinson discloses each user provide a rating value to particular items (the

rating value can be 1 to 5 or zero star to four stars. The rating value from multiple users

is entered in a database and compared to one another for similarity. Group of users are

formed based on similarity of ratings data provided by users. Optionally, other data such

as age, sex, and income level could be incorporate in the search. The system

recommends items to particular user in the group according to items selected by other

users in the same group (col. 30, line 1+; col. 6, line 25+). Clearly, the group user model

(e.g., group of users with same sex, age, income level, taste, etc.) is employed to

retrieve information in accordance with a user selection maximum value mode,

minimum value mode or average value mode in which an end user selects between a

maximum value, minimum value or average value respectively of said plurality of

specific user models so that particular desired information from said group user model

in accordance with said selected mode is provided (recommend data to particular user

in the group of user according to the rating data that the user provided).

Bergh discloses group (neighbor set) of user is formed based on preferences entered

by users, such as age, user's rating information, geographic, etc. (col. 3, line 46+). Then

the items is recommended to particular user in a neighbor set according to preferences

of other users in the neighbor set (col. 10, line 47+). Clearly, the group of user model

(neighbor set) employed to retrieve information in accordance with a user select mode

(e.g. user rating) so that particular desired information from the group model in

accordance with the selected mode is provided (item is recommended to particular user

in the neighbor set according to data of other users in the neighbor set).

For reason given above, rejection on claims 1, 3-5, 7, 9-11, 13, 17-28 is discussed

below.

Claims 2, 6, 8, 12, 14-16 have been cancelled.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

3.   Claims 1, 3-5, 7, 9-11, 13, 17-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Herz et al. (US 6,088,722) and in view of Robinson (US 5,790,426).

Regarding claim 1, Herz discloses a method for accessing to video programs and other

data using customer profiles comprising the steps of:

forming a specific user's own specific user model based on general user selection taste

data comprising classification items and information contents on the basis of a general

user group classified according to a user attributer and/ or the state of information

utilization, and based on the basis information selection taste data of the specific user

(see col. 14, lines 1- 49);

registering specific user model formed for each of plural users so as to correspond to

respective users;

retrieving the information suiting one or more specific user model (s) based on the one

or more specific user model (s) among a plurality of specific user models (col. 25, line

45 – col. 27, line 38; col. 48, lines 18-25 and col. 52, line 40 – col. 53, line 30); and

forming a group user model (clustering customer profiles) on the basis of the plurality of

specific user models and retrieving information based on the group user model (see col.

5, lines 40-59). Herz further discloses W_{ik} is customer i's weight of characteristic k (see

col. 6, lines 9-10; col. 35, line 5 – col. 36, line 23 and col. 38, line 65 – col. 41, line 5).

However, Herz does not explicitly disclose the group user model is formed by a

maximum value mode, minimum value mode or average value mode for selecting the

maximum value, minimum value or average value, respectively, of the plurality of

specific models.

Robinson discloses each user provide a rating value to particular items (the rating value can be 1 to 5 or zero star to four stars. The rating value from multiple users is entered in a database and compared to one another for similarity. Group of users are formed based on similarity of ratings data provided by users. Optionally, other data such as age, sex, and income level could be incorporate in the search. The system recommends items to particular user in the group according to items selected by other users in the same group (col. 30, line 1+; col. 6, line 25+). Thus, the group user model is employed to retrieve information in accordance with a user selection maximum value mode, minimum value mode or average value mode in which an end user selects between a maximum value, minimum value or average value respectively of said plurality of specific user models so that particular desired information from said group user model in accordance with said selected mode is provided (groups of users with same sex, age, taste are formed according to the references, rating data, etc. provided by the users. When a particular user, in the group of users, wants the system to recommend a music CD to by. The system looks for other people in the database who have similar tastes (same group) to the particular user. Based on the information of the group, a recommendation is made, or a list of recommendation is give to the particular user – col. 30, line 1+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Herz to use the teaching as taught by Robinson in order to provide most interested programs to user.

Regarding claim 3, Herz teaches the methods as discussed in the rejection of claim 1

further comprising the steps of storing the group user model set-top multimedia terminal

(see col. 26, lines 2-5 and col. 48, line 18-25). Herz further discloses on display guide

914, recommended programming (based on user profile) is highlighted in an obvious

manner or reordered for the customer's perusal and selection of the desired

programming (col. 47, line 13+). Necessarily, Herz teaches displaying a program menu

at the end user equipment in a prioritized format according to the user model according

with a request from a user to retrieve the program menu.

Regarding claim 4, Herz in view of Robinson teaches a method as discussed in the

rejection of claim 1. Robinson further teaches wherein when the maximum value mode

is selected, a genre having the highest degree of taste is continually selected from

among a plurality of genres constituting the group user model and liked by each specific

user of the group (see col. 6, line 60+).

Regarding claim 5, Herz in view of Robinson teaches a method as discussed in the

rejection of claim 1. Robinson further teaches wherein when the minimum value mode is

selected, at least a genre having the lowest degree of taste is continually selected from

among the genres constituting the group user model and liked by each specific user of

the group (rating zero star or 1 see col. 6, line 60+).

Regarding claims 7, 9-11, the apparatus elements being claimed correspond to the

method elements of claims 1, 3-5 and analyzed as discussed with respect to claims 1,

3-5.

Regarding claim 13, Herz discloses a method for accessing to video programs and

other data using customer profiles comprising the steps of:

forming a specific user model for a specific user based at least upon the specific user's

own selection data (see col. 14, lines 1- 49);

registering the specific user model formed for each of plural users, whereby a plurality

of specific user models are registered and correspond to respective users;

forming a group user model (clustering customer profiles) on the basis of the plurality of

specific user models and retrieving information based on the group user model (see col.

5, lines 40-59). Herz further discloses W_{ik} is customer i's weight of characteristic k (see

col. 6, lines 9-10; col. 35, line 5 – col. 36, line 23 and col. 38, line 65 – col. 41, line 5).

However, Herz fails to disclose group user model is formed by a maximum value mode,

minimum value mode or average value mode for selecting the maximum value,

minimum value or average value, respectively, of the plurality of specific models.

However, Herz does not explicitly disclose the group user model is formed by a

maximum value mode, minimum value mode or average value mode for selecting the

maximum value, minimum value or average value, respectively, of the plurality of

specific models.

Robinson discloses each user provide a rating value to particular items (the rating value

can be 1 to 5 or zero star to four stars. The rating value from multiple users is entered in

a database and compared to one another for similarity. Group of users are formed

based on similarity of ratings data provided by users. Optionally, other data such as

age, sex, and income level could be incorporate in the search. The system recommends

items to particular user in the group according to items selected by other users in the

same group (col. 30, line 1+; col. 6, line 25+). Thus, the group user model is employed

to retrieve information in accordance with a user selection maximum value mode,

minimum value mode or average value mode in which an end user selects between a

maximum value, minimum value or average value respectively of said plurality of

specific user models so that particular desired information from said group user model

in accordance with said selected mode is provided (groups of users with same sex, age,

taste are formed according to the references, rating data, etc. provided by the users.

When a particular user, in the group of users, wants the system to recommend a music

CD to by. The system looks for other people in the database who have similar tastes

(same group) to the particular user. Based on the information of the group, a

recommendation is made, or a list of recommendation is give to the particular user –

col. 30, line 1+). Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify Herz to use the teaching as taught by

Robinson in order to provide most interested programs to user.

Regarding claim 17, Herz in view of Robinson teaches a method as discussed in the rejection of claim 1. Herz teaches the group user model is formed exclusively on the basis of a plurality of specific user models formed for users of a common end user equipment of a household (see col. 35, line 5+).

Regarding claim 18, Herz in view of Robinson teaches a method as discussed in the rejection of claim 17. Herz further teaches common end user equipment is television equipment (see figure 10 and col. 42, line 42+).

Regarding claim 19, Herz in view of Robinson teaches a method as discussed in the rejection of claim 3. Herz further teaches the program menu is guide 914. However, neither Herz nor Robinson specifically discloses an EPG. Official Notice is taken that displaying EPG at the end user equipment with genre priority order is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Herz and Robinson to use the well-known teaching in the art in order to allow user to quickly locate desired program to select.

Regarding claim 20, Herz in view of Robinson teaches a method as discussed in the rejection of claim 3. Herz further discloses highlighting recommended program on display guide 194 (see col. 47, line 15+). However, neither Herz nor Robinson specifically discloses an EPG. Official Notice is taken that displaying EPG at the end user equipment is well known in the art. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Herz and Robinson

to use the well-known teaching in the art in order to provide information to user in

advance thereby allow user to select desired program based on the information provide

on EPG.

4.   Claims 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bergh et al. (US 6,112,186) and in view of Hendricks et al. (US 5,798,785).

Regarding claim 21, Bergh teaches a method wherein the user name, address, age are

stored in user profile, In addition, the user profile stores information about the rating,

such as time and data the user entered the rating for the item. Then in response user

rating information in user profiles, generating a user's neighbor set based on similarity

factor between the rating users; Once a set of neighboring users is chosen, a weight is

assigned to each of the neighboring users based on confident factor of each user; the

user's neighboring user set also be updated each time that a new rating is entered by

user (see figures 1 and 3). Bergh also teaches providing the user with a particular set of

items to rate corresponding to a particular group of items. Group are genres of items

(see col. 4, lines 15-52); Furthermore, Bergh teaches a list of items is recommended to

user and displayed on the screen using user information in neighbor set (see col. 13,

line 55+). Bergh also discloses user use keyboard, touch screen to input rating

information from A-F or 1-5 for items and using the rating information to form a neighbor

set (see col. 4, line 33+). Bergh further discloses group (neighbor set) of user is formed

based on preferences entered by users, such as age, user's rating information,

geographic, etc. (col. 3, line 46+). Then the items is recommended to particular user in a

neighbor set according to preferences of other users in the neighbor set (col. 10, line

47+). Inherently, the method comprising:

enabling each user of a group of users of common end user equipment to input video

program preference data;

processing the inputted program preference data to create a specific user model for

each user in the group;

forming a group user model (neighbor set) on the basis of the plurality of specific user

models;

storing the formed group user model in a group user's preference database;

receiving group of items and determining which items to provide to specific neighbor set

based on user information in neighbor set; selecting via a user interface, a program

from the displayed list for viewing.

wherein the group user model (neighbor set) is employed to retrieve information in

accordance with a user selectable maximum value mode, minimum value mode or

average value mode in which an end user selects between a maximum value, minimum

value, or average value, respectively, of the plurality of specific user models, so that

particular desired information from the group user model in accordance with the

selected mode is provided (user selects A-F or 1-5 to rate an item; the item is

recommended to particular user in the neighbor set according to data of other users in

the neighbor set)

However, Bergh does not specifically disclose receiving program guide information;

generating a display signal representing a prioritized screen which includes a list of the

determined programs;

Hendricks teaches receiving program guide information; determining program that is

interested by user based on user preferences; generating a display signal representing

a prioritized screen which includes a list of the determined programs; selecting, via a

user interface, a program from the displayed list for viewing (see col. 2, lines 7-65; col.

30, line 3-col. 33, line 13; col. 33, line 58-col. 34, line 19). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

Bergh to use the teaching as taught by Hendricks in order to provides the most desired

programs to users thereby increase efficiency in service.

Regarding claim 22, Bergh teach the group user model is formed on the basis of the

plurality of specific use models formed for users of the common end user equipment of

a household (see figures 1-3).

Regarding claim 23, Bergh in view of Hendricks teaches a method as discussed in the

rejection of claim 21. Hendricks further discloses programs suggested from the program

abstract search can then be prioritized and either displayed in prioritized order or further

refined by deleting programs not satisfying a minimum weight threshold thereby

reducing the list of suggested programs displayed to the viewer. The refined list is then

displayed to the viewer (see col. 33, lines 7-13; col. 36, lines 29-67; col. 38, lines 7-15).

Inherently, the prioritized screen contains information of an electronic program guide (EPG), the information being displayed prioritized via rearrangement of menu contents of the EPG in accordance with a genre priority order according to the group user model.

Regarding claim 24, Bergh in view of Hendricks teaches a method as discussed in the rejection of claim 21. Hendricks further discloses programs suggested from the program abstract search can then be prioritized and either displayed in prioritized order or further refined by deleting programs not satisfying a minimum weight threshold thereby reducing the list of suggested programs displayed to the viewer. The refined list is then displayed to the viewer (see col. 33, lines 7-13; col. 36, lines 29-67; col. 38, lines 7-15). Inherently, the prioritized screen contains information of an electronic program guide (EPG).

In addition, Bergh discloses information about the recommended items can be displayed to user such as "highly recommended" or "highly recommended-85%" or it may display "highly recommended-very sure" (see col. 14, lines 12-37). It is obvious that information being displayed prioritized via displayed of selected menu content of the EPG in a differentiating manner with respect to displayed non-selected menu contents on the screen in order to allow user to recognize the selected items and non-selected items, thereby it helps user to select a desired program easily.

Regarding claims 25-28, the limitations of the system as claimed correspond to the limitations of the method as claimed in claims 21-24 and are analyzed as discussed with respect to the rejection of claims 21-24.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Geerlings (US 6,073,112) teaches computer system for merchant communication to customers.

Sammon, Jr. et al. (US 6,012,051) teaches consumer profiling system with analytic decision processor.

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son P. Huynh
June 17, 2004

VIVEK SRIVASTAVA
PRIMARY EXAMINER